

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-002818**Date Inspected:** 31-May-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1700**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** C.H. Chen**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG**Summary of Items Observed:**

The Quality Assurance (QA) Inspector Gregory Bertlesman arrived on site at the Zhenhua Port Machinery Company facility on Changxing island, China to periodically monitor welding and Quality Control functions. While on site the Quality Assurance Inspector observed and/or discovered the following.

New OBG Assembly Facility

The Quality Assurance Inspector witnessed a ZPMC Ultrasonic technician performing Ultrasonic testing to repairs in the complete joint penetration weld splice of Bottom Plate BP-010-001 to Side Plate SP-065-001. The Quality Assurance Inspector witnessed the technician utilizing a 70 degree wedge to evaluate the weld. Upon completion the technician relayed that the weldment is acceptable.

Segment 18A-008

The Quality Assurance Inspector randomly performed an inspection of the fit-up of complete joint penetration weld joining Bottom Plate 18A to Side Plate 31A. The Quality Assurance Inspector measured the root opening to be approximately 5 to 7 millimeters and the bevel angle to be approximately 40 degrees. Below is a digital photograph illustrating the root opening and the use of ceramic backing utilizing a taper gauge. The Quality Assurance Inspector observed ZPMC welding operator Hong Yong Li, welder identification number 044801, performing in process welding of a complete joint penetration weld joining Bottom Plate 18A to Side Plate 31A. Quality Control Inspector C.H. Chen was monitoring the welder. The welder was using the flux cored arc welding process to produce the weld in the flat position. The Quality Assurance Inspector witnessed the Quality Control Inspector measure the welding parameters at the welder's station and found the parameters to meet the minimum requirements of welding procedure specification WPS-B-T-223(2)IT. The Quality Assurance Inspector witnessed

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Quality Control measuring the interpass temperature using a calibrated infra-red temperature measuring device.

Deck Panel to Deck Panel Welding

The Quality Assurance Inspector observed ZPMC welding operator Wang Lan Ying, performing in process welding of a complete joint penetration weld joining Deck Panel DP-014-001 to DP-060-001. Quality Control Inspector C.H. Chen was monitoring the welder. The welder was using the submerged arc welding process to produce the weld in the flat position. The parts were stationary while the welding machine was tracks to facilitate welding along the length of the part, The Quality Assurance Inspector witnessed the Quality Control Inspector measure the welding parameters at the welder's station and found the parameters to meet the minimum requirements of welding procedure specification WPS-B-T-2221-B—S-1. The Quality Assurance Inspector witnessed Quality Control measuring the interpass temperature using a calibrated infra-red temperature measuring device. Below is a digital photograph illustrating the welding in progress.



Summary of Conversations:

As stated in the contents of the above report.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Pat Lowry (916) 227-5719, who represents the Office of Structural Materials for your project.

Inspected By:	Bertlesman,Greg	Quality Assurance Inspector
Reviewed By:	Cuellar,Robert	QA Reviewer
